What is claimed is:

1. Low expansion transparent glass-ceramics obtained by heat treating a base glass produced at a melting temperature of 1530 ℃ or below, said glass-ceramics containing β -quartz or β -quartz solid solution as a predominant crystal phase and 50% - 60% SiO_2 in mass % on the basis of amount of total oxides, being free of K_2O and Na_2O, having an average linear thermal expansion coefficient (α) within a range from $+6\times10^{-7}$/℃ to $+35\times10^{-7}$/℃ within a temperature range from 100℃ to 300℃ and having 80% transmittance wavelength (T_{80}) of 700nm or below.

2. Low expansion transparent glass-ceramics as defined in claim 1 wherein internal transmittance for a plate having thickness of 10mm is 75% or over at light wavelength of 1550nm.

3. Low expansion transparent glass-ceramics as defined in claim 1 having a heat resisting temperature of 800℃ or over.

4. Low expansion transparent glass-ceramics as defined in claim 1 having Young's modulus of 90 GPa or over.

5. Low expansion transparent glass-ceramics as defined in claim 1 containing 1.5% - 3.5% Li_2O in mass % on the basis of amount of total oxides.

6. Low expansion transparent glass-ceramics as defined in claim 1 wherein amount of eluting lithium ion is less than 0.0050 μ g/cm^2.

7. Low expansion transparent glass-ceramics as defined in claim 1 containing 3% - 6% TiO_2 in mass % on the basis of amount of total oxides.

8. Low expansion transparent glass-ceramics as defined in claim 1 containing three or more ingredients among RO ingredients (where R is Mg, Ca, Sr, Ba or Zn) in an amount of 0.5% or over in mass % on the basis of amount of total oxides for respective ingredients.

9. Low expansion transparent glass-ceramics as defined in claim 8 containing ZnO in a larger amount than other RO ingredients in mass % on the basis of amount of total oxides.

10. Low expansion transparent glass-ceramics as defined in claim 8 containing a total amount of the RO ingredients of 3.5% or over in mass % on the basis of amount of total oxides.

11. Low expansion transparent glass-ceramics as defined in claim 1 containing a total amount of R'O ingredients (where R' is Mg, Ca, Ba or Sr) of 3% - 13% in mass % on the basis of amount of total oxides.

12. Low expansion transparent glass-ceramics as defined in claim 1 comprising in mass % on the basis of amount of total oxides:

Al_2O_3	20 - 30%
MgO	0.5 - 2%
CaO	0.5 - 2%
SrO	0 - 10%
BaO	1 - 5%
ZnO	0.5 - 15%
Li_2O	1.5 - 3.5%
TiO_2	3 - 6%
ZrO_2	1 - 5%

Nb_2O_5	0 - 5%
La_2O_3	0 - 5%
Y_2O_3	0 - 5%
As_2O_3 and/or Sb_2O_3	0 - 2%.

13. Low expansion transparent glass-ceramics obtained by heat treating a base glass produced at a melting temperature of 1530℃ or below, said glass-ceramics containing β -quartz or β -quartz solid solution as a predominant crystal phase and 50% - 60% SiO_2 in mass % on the basis of amount of total oxides and 1% – 5% BaO in mass % on the basis of amount of total oxides, having an average linear thermal expansion coefficient (α) within a range from $+6 \times 10^{-7}$/℃ to $+35 \times 10^{-7}$/℃ within a temperature range from 100℃ to 300℃ and having 80% transmittance wavelength (T_{80}) of 700nm or below.

14. Low expansion transparent glass-ceramics as defined in claim 13 wherein internal transmittance for a plate having thickness of 10mm is 75% or over at light wavelength of 1550nm.

15. Low expansion transparent glass-ceramics as defined in claim 13 having a heat resisting temperature of 800℃ or over.

16. Low expansion transparent glass-ceramics as defined in claim 13 having Young's modulus of 90 GPa or over.

17 Low expansion transparent glass-ceramics as defined in claim 13 containing 1.5% - 3.5% Li_2O in mass % on the basis of amount of total oxides.

18. Low expansion transparent glass-ceramics as defined in claim 13

wherein amount of eluting lithium ion is less than 0.0050 μ g/cm^2.

19. Low expansion transparent glass-ceramics as defined in claim 13 containing 3% - 6% TiO_2 in mass % on the basis of amount of total oxides.

20. Low expansion transparent glass-ceramics as defined in claim 13 containing three or more ingredients among RO ingredients (where R is Mg, Ca, Sr, Ba or Zn) in an amount of 0.5% or over in mass % on the basis of amount of total oxides for respective ingredients.

21. Low expansion transparent glass-ceramics as defined in claim 20 containing ZnO in a larger amount than other RO ingredients in mass % on the basis of amount of total oxides.

22. Low expansion transparent glass-ceramics as defined in claim 20 containing a total amount of the RO ingredients of 3.5% or over in mass % on the basis of amount of total oxides.

23. Low expansion transparent glass-ceramics as defined in claim 13 containing a total amount of R'O ingredients (where R' is Mg, Ca, Ba or Sr) of 3% - 13% in mass % on the basis of amount of total oxides.

24. Low expansion transparent glass-ceramics as defined in claim 13 comprising in mass % on the basis of amount of total oxides:

Al_2O_3	20 - 30%
MgO	0.5 - 2%
CaO	0.5 - 2%
SrO	0 - 10%
ZnO	0.5 - 15%

Li_2O	1.5 - 3.5%
TiO_2	3 - 6%
ZrO_2	1 - 5%
Nb_2O_5	0 - 5%
La_2O_3	0 - 5%
Y_2O_3	0 - 5%
As_2O_3 and/or Sb_2O_3	0 - 2%.

25. Low expansion transparent glass-ceramics obtained by heat treating a base glass produced at a melting temperature of 1530℃ or below, said glass-ceramics containing 50% - 60% SiO_2 in mass % on the basis of amount of total oxides and 1.5% - 3.5% Li_2O on the basis of amount of total oxides, being free of K_2O and Na_2O, having an average linear thermal expansion coefficient (α) within a range from $+6\times10^{-7}$/℃ to $+35\times10^{-7}$/℃ within a temperature range from 100℃ to 300℃ and having 80% transmittance wavelength (T_{80}) of 700nm or below.

26. Low expansion transparent glass-ceramics as defined in claim 25 wherein internal transmittance for a plate having thickness of 10mm is 75% or over at light wavelength of 1550nm.

27. Low expansion transparent glass-ceramics as defined in claim 25 having a heat resisting temperature of 800℃ or over.

28. Low expansion transparent glass-ceramics as defined in claim 25 having Young's modulus of 90 GPa or over.

29. Low expansion transparent glass-ceramics as defined in claim 25 wherein amount of eluting lithium ion is less than 0.0050 μ g/cm^2.

30. Low expansion transparent glass-ceramics as defined in claim 25 containing 3% - 6% TiO_2 in mass % on the basis of amount of total oxides.

31. Low expansion transparent glass-ceramics as defined in claim 25 containing three or more ingredients among RO ingredients (where R is Mg, Ca, Sr, Ba or Zn) in an amount of 0.5% or over in mass % on the basis of amount of total oxides for respective ingredients.

32. Low expansion transparent glass-ceramics as defined in claim 31 containing ZnO in a larger amount than other RO ingredients in mass % on the basis of amount of total oxides.

33. Low expansion transparent glass-ceramics as defined in claim 31 containing a total amount of the RO ingredients of 3.5% or over in mass % on the basis of amount of total oxides.

34. Low expansion transparent glass-ceramics as defined in claim 25 containing a total amount of R' ingredients (where R' is Mg, Ca, Ba or Sr) of 3% - 13% in mass % on the basis of amount of total oxides.

35. Low expansion transparent glass-ceramics as defined in claim 25 comprising in mass % on the basis of amount of total oxides:

Al_2O_3	20 - 30%
MgO	0.5 - 2%
CaO	0.5 - 2%
SrO	0 - 10%
BaO	1 - 5%
ZnO	0.5 - 15%

TiO_2	3 - 6%
ZrO_2	1 - 5%
Nb_2O_5	0 - 5%
La_2O_3	0 - 5%
Y_2O_3	0 - 5%
As_2O_3 and/or Sb_2O_3	0 - 2%.

36. Low expansion transparent glass-ceramics obtained by heat treating a base glass produced at a melting temperature of 1530℃ or below, said glass-ceramics containing 50% - 60% SiO_2 in mass % on the basis of amount of total oxides, 1.5% - 3.5% Li_2O on the basis of amount of total oxides and 1% - 5% BaO in mass % on the basis of amount of total oxides, having an average linear thermal expansion coefficient (α) within a range from $+6\times10^{-7}$/℃ to $+35\times10^{-7}$/℃ within a temperature range from 100℃ to 300℃ and having 80% transmittance wavelength (T_{80}) of 700nm or below.

37. Low expansion transparent glass-ceramics as defined in claim 36 wherein internal transmittance for a plate having thickness of 10mm is 75% or over at light wavelength of 1550nm.

38. Low expansion transparent glass-ceramics as defined in claim 36 having a heat resisting temperature of 800℃ or over.

39. Low expansion transparent glass-ceramics as defined in claim 36 having Young's modulus of 90 GPa or over.

40. Low expansion transparent glass-ceramics as defined in claim 36 wherein amount of eluting lithium ion is less than 0.0050 μ g/cm^2.

41. Low expansion transparent glass-ceramics as defined in claim 36 containing 3% - 6% TiO_2 in mass % on the basis of amount of total oxides.

42. Low expansion transparent glass-ceramics as defined in claim 36 containing three or more ingredients among RO ingredients (where R is Mg, Ca, Sr, Ba or Zn) in an amount of 0.5% or over in mass % on the basis of amount of total oxides for respective ingredients.

43. Low expansion transparent glass-ceramics as defined in claim 42 containing ZnO in a larger amount than other RO ingredients in mass % on the basis of amount of total oxides.

44. Low expansion transparent glass-ceramics as defined in claim 42 containing a total amount of the RO ingredients of 3.5% or over in mass % on the basis of amount of total oxides.

45. Low expansion transparent glass-ceramics as defined in claim 36 containing a total amount of R'O ingredients (where R' is Mg, Ca, Ba or Sr) of 3% - 13% in mass % on the basis of amount of total oxides.

46. Low expansion transparent glass-ceramics as defined in claim 36 comprising in mass % on the basis of amount of total oxides:

Al_2O_3	20 - 30%
MgO	0.5 - 2%
CaO	0.5 - 2%
SrO	0 - 10%
ZnO	0.5 - 15%
TiO_2	3 - 6%
ZrO_2	1 - 5%

Nb_2O_5	0 - 5%
La_2O_3	0 - 5%
Y_2O_3	0 - 5%
As_2O_3 and/or Sb_2O_3	0 - 2%.